

What is claimed is:

1. A composition comprising:

at least one polymer; and

5 a colloid comprising a salt or oxide of one or more oligodynamic metals;

wherein the salt or oxide of one or more oligodynamic metals inhibits microbial adherence of one or more organisms to the composition.

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2. The composition of Claim 1 wherein the salt or oxide of one or more oligodynamic metals creates a zone of inhibition to the one or more pathogens when placed on a culture of the one or more pathogens.

15 3. The composition of Claim 1 wherein the salt or oxide of one or more oligodynamic metals does not create a zone of inhibition to the one or more pathogens when placed on a culture of the one or more pathogens.

4. The composition of Claim 1 wherein the salt or oxide of one or more oligodynamic metals is a silver salt.

20 5. The composition of Claim 1 wherein the silver salt is selected from silver chloride, silver iodide, silver citrate, silver lactate, silver acetate, silver propionate, silver salicylate, silver bromide, silver ascorbate, silver laurel sulfate, silver phosphate, silver sulfate, silver oxide, silver benzoate, silver carbonate, silver sulfadiazine, and silver gluconate.

25 6. The composition of Claim 1 wherein the colloid comprises the salt of more than one oligodynamic metal.

7. The composition of Claim 1 wherein the one or more oligodynamic metal salts comprise salts having different solubilities in water.

8. The composition of Claim 1 wherein the at least one polymer is selected from polyurethanes, polyvinylpyrrolidones, polyvinyl alcohols, polyethylene glycols, polypropylene glycols, polyoxyethylenes, polyacrylic acid, polyacrylamide, carboxymethyl cellulose, dextrans, polysaccharides, starches, 5 guar, xantham and other gums, collagen, gelatins, biological polymers, polytetrafluoroethylene, polyvinyl chloride, polyvinylacetate, poly(ethylene terephthalate), silicone, polyesters, polyamides, polyureas, styrene-block copolymers, polymethyl methacrylate, polyacrylates, acrylic-butadiene-styrene copolymers, polyethylene, polystyrene, polypropylene, natural and synthetic 10 rubbers, acrylonitrile rubber, cellulose, and mixtures, derivatives, and copolymers thereof.

9. The composition of Claim 1 wherein the silver salt is silver chloride and the composition contains silver chloride present in an amount between about four and about six percent based on the total weight of solids in 15 the composition.

10. An article comprising the composition of Claim 1 .

11. The article of Claim 10, wherein the article comprises a substrate material and a coating on at least part of one or more surfaces of the substrate material and the coating comprises the composition.

20 12. The article of Claim 11 wherein the coating covers part of at least one surface of the substrate and does not cover another part of the surface.

13. The article of Claim 12 wherein the part of the surface that is not covered is sufficiently transparent to allow visual inspection of the interior of the article.

25 14. The article of Claim 11 wherein the coating comprises multiple coating layers.

15. The article of Claim 10 wherein the article comprises a medical device.

16. The article of Claim 10 wherein the one or more salt or oxides of oligodynamic metals are present in a concentration of between about 10 and about 15 micrograms per square centimeter of surface area of the articles.
17. A method for the manufacture of an article comprising the steps of
- 5 (1) forming a solution, dispersion, or combination thereof comprising the composition of Claim 1; and
- (2) drying the solution to create a solid polymeric article.
18. A method for the manufacture of an article comprising the steps of:
- 10 (1) forming the composition of Claim 1;
- (2) drying the composition; and
- (3) processing the composition with the application of heat to form the article.
19. A method for the manufacture of an article comprising the steps of
- 15 (1) forming the composition of Claim 1;
- (2) compounding the composition formed in (1) with one or more polymers; and
- (3) processing the composition formed in (2) with the application of heat to form the article.
- 20 20. A method for the manufacture of an article comprising dipping a form in the composition of Claim 1.
21. A method for the manufacture of an article comprising casting the composition of Claim 1 into a preselected shape.

20. A method for delivery of one or more oligodynamic metals, salts of oligodynamic metals, oxides of oligodynamic metals, or combinations thereof to a desired location comprising:

- 5 providing the composition of Claim 1, and
implanting, administering, inserting, or otherwise placing the composition under conditions effective to deliver oligodynamic metals, salts of oligodynamic metals, oxides of oligodynamic metals, or combinations thereof, to the desired location.

10 21. A method of treatment of a cell, tissue, or organism, comprising implanting, administering, inserting, or otherwise placing the composition of Claim 1 under conditions effective to deliver one or more oligodynamic metals, salts of oligodynamic metals, oxides of oligodynamic metals, or combinations thereof to the cell, tissue, organism, or a portion of the cell, tissue, or organism.

15 22. The use of the composition of Claim 1 in the preparation of an article or medicament for delivery of one or more oligodynamic metals, salts of oligodynamic metals, oxides of oligodynamic metals, or combinations thereof to the cell, tissue, organism, or a portion of the cell, tissue, or organism.

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